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REMARKS

Claims 1-11 and 13-30 are currently pending in the subject application and are presently under consideration. Claims 1, 11, and 24 have been amended as shown on pp. 2-6 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

**I. Rejection of Claims 1-11 and 13-26 Under 35 U.S.C. §101**

Claims 1-11 and 13-26 stand rejected under 35 U.S.C. §101 under the contention that the claimed invention is directed to non-statutory subject matter. Withdrawal of this rejection is respectfully requested for at least the following reasons. Independent claims 1, 11 and 24 have been amended herein to emphasize that the invention relates in large part to *practical* computer-implemented method(s) and/or system(s) that *produce a useful, concrete and tangible result*.

Because the claimed process applies the Boolean principle [abstract idea] *to produce a useful, concrete, tangible result* ... on its face the claimed process comfortably falls within the scope of §101. *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358. (Fed.Cir. 1999) (Emphasis added); *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed.Cir.1998). The inquiry into patentability requires an examination of the contested claims to see if the claimed subject matter, as a whole, is a disembodied mathematical concept representing nothing more than a "law of nature" or an "abstract idea," or if the mathematical concept has been *reduced to some practical application rendering it "useful."* *AT&T* at 1357 citing *In re Alappat*, 33 F.3d 1526, 31 USPQ2d 1544, 31 U.S.P.Q.2D (BNA) 1545, 1557 (Fed. Cir. 1994) (Emphasis added) (holding that more than an abstract idea was claimed because the claimed invention as a whole was directed toward forming a specific machine that produced the useful, concrete, and tangible result of a smooth waveform display).

In the Office Action dated January, 25, 2005, it is asserted that "claims 1, 11, and 24 do not contain positive recitation in the body of the claims to breath life and meaning into the preamble. Claims 1, 11, and 24 have been amended herein to emphasize that the invention is directed to computer-implemented methods employing a *computer-implemented component*."

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Moreover, it is readily apparent that the claimed invention relates to computer implemented methods or systems that produce a useful, concrete and tangible result. For example, one particular aspect of the claimed invention employs computer implemented methods and/or components to utilize computer-implemented decision theoretic models to maximize expected increase in profits in connection with identifying a sub-population of a population to solicit in connection with targeted advertising which is *a useful, concrete and tangible result*.

The invention is clearly directed to statutory subject matter; and this rejection should be withdrawn.

## II. Rejection of Claims 1, 5-7, 9 and 28 Under 35 U.S.C. §103(a)

Claims 1, 5-7, 9 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Grosser, *et al.* (US 6,826,552). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Grosser, *et al.* does not teach or suggest each and every limitation of applicants' claimed invention.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. See *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The subject invention relates to methods and systems for identifying a sub-population of a population to solicit and a sub-population of the population not to solicit that will maximize profits for a merchant performing solicitation. For instance, applicants' claimed invention can take a sample of a population, divide the sample into a solicitation group and a non-solicitation group, and solicit the solicitation group. Tracking of purchases and non-purchases by members

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of each group allows for a model to be constructed that can be used against the entire population to identify a sub-population to solicit and a sub-population not to solicit that will maximize profits. The applicants' claimed invention minimizes solicitation of members who will not make a purchase, who are already planning on buying, and/or who planned on buying but will not buy if solicited, thereby reducing cost of solicitation. The method also increases solicitation to a subset of members who will buy if solicited, thereby maximizing purchases. In particular, as recited in independent claims 1 and 28, applicants' claimed invention employs a computer-implemented component to identify the sub-population to solicit and a non-solicited sub-population by using a computer-implemented decision theoretic model, the decision theoretic model constructed to *maximize an expected increase in profits;... and sets a purchase variable to a first value for each of the plurality of members of the solicitation and the non-solicitation sub-population that made a purchase and to a second value for each of the plurality of members of the solicitation and the non-solicitation sub-populations that did not make the purchase.*

Grosser, *et al.* does not teach or suggest the aforementioned novel aspects of applicants' invention as recited in the subject claims. Rather, Grosser, *et al.* discloses a computer aided decision making system that assists a user in making a decision regarding large purchases, such as a home or automobile. In particular, the system of Grosser, *et al.* allows a user to solicit input from one or more advocates (family member, friend, etc.) on proposals from sellers. The system can also allow advocates who are not solicited to provide input. These advocates provide their opinions on the proposals, but are not themselves making purchases. The sections of the references cited in the Office Action dated January 9, 2005, teach users being able to define requirements for their purchase that the advocate can consider in providing as input, and a screen that shows proposals that the user has rejected and proposals still being considered. Grosser, *et al.* fails to teach or suggest a purchase variable associated with advocates that tracks their purchases and assignment of a first value to a purchase variable for purchase and a second value for non-purchase. Grosser, *et al.* is not concerned with the purchase decisions of the advocates, but instead is concerned with gathering input from the advocates so that the user can decide on a proposal. Therefore, Grosser, *et al.* does not teach or suggest *setting a purchase variable to a first value for each of the plurality of members of the solicitation and the non-solicitation sub-population that made a purchase and to a second value for each of the plurality of members of*

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*the solicitation and the non-solicitation sub-populations that did not make the purchase as in applicants' claimed invention.*

Furthermore, Grosser, *et al.* does not teach or suggest *a decision theoretic model constructed to maximize an expected increase in profits from a solicitation*. The Office Action suggests that the decision making system of Grosser, *et al.* leads a customer to buy an item, which in turn increases profit. However, Grosser, *et al.* is concerned with assisting the buyer in determining where to purchase from multiple proposals possibly from a variety of sellers. Applicants' claimed invention teaches a system that determines how to maximize profit from a population of potential purchasers by identifying which members of the population to solicit. The motives of a buyer and seller are not aligned in terms of maximizing profit. The buyer is concerned with obtaining the item at lowest cost possible which can lead to minimizing seller profit. The seller is attempting to sell product at a highest price that still results in sale, while also minimizing costs associated with selling in order to maximize profit. Therefore, contrary to assertions in the Office Action, Grosser, *et al.* does not inherently teach or suggest a decision theoretic model constructed to maximize an expected increase in profits from a solicitation. The Examiner takes official notice to the fact that it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a decision theoretic model constructed to maximize an expected increase in profits. Applicants' representative respectfully traverses the aforementioned well known statements and request that the Examiner cite a reference in support of such proposition pursuant to MPEP §2144.03 if the rejection of the independent claims is maintained.

In view of at least the foregoing, applicants' representative respectfully submits that Grosser, *et al.* fails to teach or suggest all limitations of applicants' invention as recited in independent claims 1 and 28 (and claims 5-7 and 9 that depend there from), and thus fails to make obvious the claimed invention. Therefore, this rejection should be withdrawn.

### **III. Rejection of Claims 2-7, 11, 13-27, 29 and 30 Under 35 U.S.C. §103(a)**

Claims 2-7, 11, 13-27, 29 and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Grosser, *et al.* in view of Kohavi (US 6,182,058). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Grosser, *et al.* and

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Kohavi, alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

Independent claims 11 and 24 (similarly to independent claims 1 and 28) recite *setting the purchase variable to the first value for each of the plurality of members of the solicitation and the non-solicitation groups that made a purchase and to the second value for each of the plurality of members of the solicitation and the non-solicitation groups that did not make the purchase;... applying the decision tree against the population to identify the sub-population to solicit to maximize the expected increase in profits*. As discussed *supra* with respect to independent claims 1 and 28, Grosser, *et al.* fails to teach or suggest these novel features of the subject claims. Furthermore, Kohavi fails to make up for these deficiencies of Grosser, *et al.* with respect to these claimed features. Rather, Kohavi discloses a hybrid classifier, called the NB-Tree classifier, for classifying a set of records. In an example, Kohavi teaches a marketing campaign where responses are tracked to determine who is likely to respond. However, Kohavi fails to teach a purchase variable that is set with a first value for purchase and a second value for non-purchase. A likeliness to respond is not analogous to a purchase. A recipient of the marketing campaign may respond, such as to request more information, without ever making a purchase. Furthermore, Kohavi discusses reducing costs associated with the marketing campaign, but reducing costs is not equivalent to maximizing profit. Reducing costs increases profits, but does not necessarily maximize profits. Maximizing profit from a solicitation results from increasing purchases, avoiding discounting prices, and reducing solicitation costs.

Grosser, *et al.* and Kohavi do not teach or suggest setting the purchase variable to the first value for each of the plurality of members of the solicitation and the non-solicitation groups that made a purchase and to the second value for each of the plurality of members of the solicitation and the non-solicitation groups that did not make the purchase;... and applying the decision tree against the population to identify the sub-population to solicit to maximize the expected increase in profits as in applicants' claimed invention.

Claims 2-7 and 29-30 depend from independent claims 1 and 28 respectively. As discussed above with respect to independent claims 11 and 24, Kohavi fails to cure the above noted deficiencies of Grosser, *et al.* regarding independent claims 1 and 28. Accordingly, withdrawal of this rejection is respectfully requested.

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In view of at least the above, it is respectfully submitted that Grosser, *et al.* and Kohavi, alone or in combination, fail to teach or suggest all aspects of applicants' invention as recited in independent claims 11 and 24 (and claims 13-27 that depend there from), and thus fails to make obvious the subject claimed invention. This rejection should be withdrawn.

**IV. Rejection of Claim 10 Under 35 U.S.C. §103(a)**

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Grosser, *et al.* as applied to claim 1 above, and further in view of Cooper, *et al.* (US 5,737,416). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. The cited art, alone or in combination, do not teach or suggest each and every feature of applicants' claimed invention.

Claim 10 depends from independent claim 1. Cooper, *et al.* fails to cure the above noted deficiencies of Grosser, *et al.* with respect to independent claim 1. Cooper, *et al.* discloses a system for allowing a producer of software to provide a trial period for use of the software when a potential buyer initiates a request for said software, while maintaining security over the files to prevent piracy. Cooper fails to teach or suggest solicitation and non-solicitation sub-populations and maintaining a purchase variable for members of each group, as well as failing to mention maximizing profit. Cooper, *et al.* is silent regarding setting the purchase variable to the first value for each of the plurality of members of the solicitation and the non-solicitation groups that made a purchase and to the second value for each of the plurality of members of the solicitation and the non-solicitation groups that did not make the purchase;... and applying the decision tree against the population to identify the sub-population to solicit to maximize the expected increase in profits as in the claimed invention.

Accordingly, withdrawal of this rejection is respectfully requested.

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CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP282US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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